

## **REMARKS**

The present Amendment is in response to the Office Action. By this paper, claims 1, 4-6, 16, 17, 20, and 24 are amended and claims 7, 25, and 26 are cancelled, without prejudice or disclaimer. New claim 33 is added. Claims 1-6, 8-24, and 27-33 are now pending as a result of the aforementioned claim amendments, cancellations, and new claim.

Reconsideration of the application is respectfully requested in view of the above amendments to the claims and the following remarks. For the Examiner's convenience and reference, Applicants' remarks are presented in the order in which the corresponding issues were raised in the Office Action.

### **I. General Considerations**

Applicants note that the remarks presented herein have been made merely to clarify the claimed embodiments from elements purported by the Examiner to be taught by the cited reference. Such remarks, or a lack of remarks, are not intended to constitute, and should not be construed as, an acquiescence, on the part of the Applicants: as to the purported teachings or prior art status of the cited references; as to the characterization of the cited references advanced by the Examiner; or as to any other assertions, allegations or characterizations made by the Examiner at any time in this case. Applicants reserve the right to challenge the purported teaching and prior art status of the cited references at any appropriate time.

In addition, the remarks herein do not constitute, nor are they intended to be, an exhaustive enumeration of the distinctions between any cited references and the claimed invention. Rather, the distinctions identified and discussed herein are presented solely by way of example. Consistent with the foregoing, the discussion herein is not intended, and should not be construed, to prejudice or foreclose contemporaneous or future consideration, by the Applicants, of additional or alternative distinctions between the claims of the present application and the references cited by the Examiner, and/or the merits of additional or alternative arguments.

### **II. Claim Rejections**

#### **A. Claims 1-8, 15-17, and 20-27**

The Office Action rejected claims 1-8, 15-17, and 20-27 under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 6,075,634 to *Casper et al.* ("*Casper*") in view of U.S.

Pre-Grant Pub. No. 2003/0011847 to *Dai et al.* (“*Dai*”) and further in view of U.S. Patent Pre-Grant Pub. No. 2003/0053170 to *Levinson et al.* (“*Levinson*”). Applicants respectfully traverse the rejection on the grounds that the prior art references do not teach or suggest all the claim limitations. According to MPEP section 2143:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

(Emphasis added).

Inasmuch as claims 7, 25, and 26 have been cancelled herein, Applicants respectfully submit that the rejection of these claims has been rendered moot and should be withdrawn.

Claim 1, as amended, recites a transceiver module comprising, among other things: “a receiver eye opener . . . having an adaptive equalizer located in the receiver path and a clock and data recovery (CDR) unit coupled to transmit a recovered clock signal to the adaptive equalizer, wherein the CDR unit is located external to the receive path.” In contrast, the Examiner has not established that *Casper*, *Dai*, and *Levinson*, whether considered individually or in combination, teach or suggest the aforementioned limitation in combination with the other limitations of claim 1.

In the Office Action, the Examiner identified receiver regenerator unit 140 of *Casper* as corresponding to the claimed CDR unit. See Office Action, p. 6. The Examiner also alleged that “*Casper* in view of *Dai* and further in view of *Levinson* disclose . . . [a] CDR unit [that] is located external to the receive path . . . .” See Office Action, p. 6 (citing *Casper* at Figure 4 and col. 2 ll. 3-20). However, *Casper* describes the receiver regenerator unit 140 as being coupled to an output of a converter-receiver 90 (see col. 6, lines 9-13, and Figs. 3 and 4) and outputting “an electrical output signal that stably replicates the . . . data modulations of the optical signals received by the [converter-receiver] 90.” See *Casper*, col. 6, lines 14-20. Thus, *Casper* discloses a configuration in which receiver regenerator unit 140 is *internal* to a receive path, i.e., opposite of the claimed configuration.

Furthermore *Dai* fails to remedy the deficiencies of *Casper*. For example, *Dai* describes clock and data recovery circuitry 17 as being “embedded” in a receiver. See Paragraph [0056] and Fig. 1. *Levinson*, relied on for its alleged disclosure of transmitting and receiving serial electrical data externally from a transceiver module (see Office Action, p. 5), also fails to remedy the deficiency of *Casper*.

Thus, the Examiner has not established that *Casper*, *Dai*, *Levinson*, or any combination thereof, teaches or suggests the aforementioned limitation in combination with the other limitations of claim 1. Therefore, Applicants respectfully submit that the rejection of claim 1, and corresponding dependent claims 2-6, 8, and 15, should be withdrawn.

Claims 16 and 20 have each been amended to include limitations similar to that of claim 1 discussed above. For example, claim 16, as amended, recites a transceiver module comprising, among other things: “receiver eye opener means . . . having an adaptive equalizer located in the receive path and means for transmitting a recovered clock signal to the adaptive equalizer, wherein the means for transmitting the recovered clock signal is located external to the receive path.” Claim 20, as amended, recites an integrated circuit for use in a transceiver module comprising, among other things: “receiver eye opener circuitry . . . including an adaptive equalizer and clock recovery circuitry coupled to transmit a recovered clock signal to the adaptive equalizer, wherein the clock recovery circuitry is located external to a data path from the first electrical input port to the first electrical output port.” Therefore, for at least the same reasons discussed above with respect to claim 1, the rejection of independent claims 16 and 20, and corresponding dependent claims 17, 21-24, and 27, should be withdrawn.

#### **B. Claims 9-14, 18, 19, and 28-32**

The Office Action rejected claims 9-11, 18, 19, and 28-30 under 35 U.S.C. § 103 as being unpatentable over *Casper* in view of *Dai* and *Levinson* and further in view of U.S. Patent No. 6,469,782 to *Schaepperle et al.* (“*Schaepperle*”). The Office Action also rejected claims 12-14 and 31-32 under 35 U.S.C. § 103 as being unpatentable over *Casper* in view of *Dai* and *Levinson* and further in view of U.S. Pre-Grant Pub. No. 2002/0060824 to *Liou et al.* (“*Liou*”). Applicants respectfully traverse these rejections.

Claims 9-14 depend from allowable claim 1 and thus include every element of claim 1. Similarly claims 18 and 19 depend from allowable claim 16 and claims 28-32 depend from

allowable claim 20. Thus each of claims 18, 19, and 28-32 includes every element of their respective base claims. Therefore, Applicants submit that, consistent with the discussion at section II.A. above, the Examiner has not established that *Casper*, *Dai*, *Levinson*, or any combination thereof, teaches or suggests all the limitations of claims 1, 16, and 20. Furthermore, the Examiner has not established that either *Schaepperle* or *Liou* remedies the deficiencies of *Casper*, *Dai*, or *Levinson*. For at least these reasons, the Examiner has not established a *prima facie* case of obviousness and Applicants respectfully submit that the rejection of claims 9-14, 18, 19, and 28-32 should be withdrawn.

### III. New Claim 33

Applicants note new claim 33 has been added herein. Support for this new claim can be found at least on page 29, paragraph [0093] of the application. Applicants respectfully submit that claim 33 is allowable at least by virtue of its dependence from allowable claim 1.

### CONCLUSION

In view of the discussion and amendments submitted herein, Applicants respectfully submit that each of the pending claims 1-6, 8-24, and 27-33 is now in condition for allowance. Therefore, reconsideration of the rejections is requested and allowance of those claims is respectfully solicited. In the event that the Examiner finds any remaining impediment to a prompt allowance of this application that could be clarified in a telephonic interview, the Examiner is respectfully requested to initiate the same with the undersigned attorney.

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Respectfully submitted,

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